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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,028	09/05/2003	Paul L. Camwell	A891743US	6038

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GOWLING LAFLEUR HENDERSON LLP  
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CANADA

EXAMINER
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CAVALLARI, DANIEL J

ART UNIT	PAPER NUMBER
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2836

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/22/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/655,028	<b>Applicant(s)</b> CAMWELL ET AL.	
	<b>Examiner</b> Daniel J. Cavallari	<b>Art Unit</b> 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-16 is/are allowed.
- 6) ☒ Claim(s) 1-5, 17 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The examiner acknowledges a submission of the amendment filed on 10/26/2006. The amendments to claims 1, 2, 3, 6, 12, & 14 are accepted.

### ***Response to Arguments***

The previously made objections to the drawings have been withdrawn in view of the replacement drawings submitted on 10/26/2006.

Applicant's arguments with respect to claims 1-5 & 17 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 & 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Sumi et al. (US 6,554,490).

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In regard to Claim 1

A coaxial multi-conductor plug and socket means arrangement, said plug means having a plurality of plug contacts (See Figure 9b) thereon, adapted for insertion in said socket means, said socket means having a plurality of socket contacts disposed thereon, comprising:

- A first plug contact (ie. the second plug contact from the left, See Figure 9B) of said plug contacts electrically coupled to a first simple electronic device, read on by the electronic component 305, and at least one other plug contact electrically coupled to plug isolation means, read on by the left most contact connected to plug isolation means (324) (See Figures 8, 9A, & 9B).
- A first socket contact of said socket contacts (read on by the contact 303, See Figure 9B) electronically coupled to a second simple electronic device, read on by the component 306, and at least one other socket contact electronically coupled to socket isolation means, read on by the left most contact of contacts 314 coupled with socket isolation means, read on by switches 328, See Figure 8).
- The plug isolation means (324) activated only when the second simple electronic device is detected by the full engagement of the plug and socket (thereby producing the CNS signal) so as to then permit electrical current to flow to and/or from said at least one other plug contact thereon (read on by power contacts 315, See Figure 9B).

- The socket isolation means (328) activated only when the first simple electronic device is detected by the full engagement of the plug and socket so as to them permit electrical current to flow to and/or from said at least one other socket contact thereon (read on by the power contacts 315, See Figure 9B) [The examiner notes that the socket isolation means (328) is controlled by the socket isolations means (324) which is activated only when the CNS signal is produced by the first and second simple electronic devices (306 & 305) only when the plug is fully inserted into the socket (See Column 9, Line 29 to Column 10, Line 7).

In regard to Claim 2

- A coaxial multi-conductor plug and socket arrangement comprising:
  - A pair of plug contacts, read on by the contacts of the plug 111, See Figure 9B, electrically coupled to each other via a simple electronic device, read on by the electronic device comprising components 306 & 302 (See Figure 9B) [The examiner notes that the simple electronic device is responsible for electrically coupling the contacts together through switch 328 to the IEEE1394 communication circuit].
  - A pair of socket contacts, electrically coupled to electronic isolation means (328) [The examiner notes that all sockets are coupled to the isolation means 328, See Figure 9B].
  - The socket isolation means being activated only when current is detected in the simple electronic device upon full engagement of the plug and socket

arrangement [The examiner notes that this is achieved when the CNS signal is produced and sent to the circuit 324 which activates the socket isolation means 328, See Figure 8].

In regard to Claim 3

A coaxial multi-conductor plug and socket arrangement comprising:

- A pair of plug contacts, read on by the contacts of the plug 111, See Figure 9B, electrically coupled (via IEEE1394 communication circuit) to a simple electronic device, read on by the electronic device comprising components 306 & 302 (See Figure 9B).
- A pair of socket contacts, electrically coupled to electronic isolation means (328) [The examiner notes that all sockets are coupled to the isolation means 328, See Figure 9B].
- The socket isolation means being activated only when current is detected in the simple electronic device upon full engagement of the plug and socket arrangement [The examiner notes that this is achieved when the CNS signal is produced and sent to the circuit 324 which activates the socket isolation means 328, See Figure 8].

In regard to Claim 4

- The plug and socket each comprising fixed diameter barrel-style coaxial bodies (See Figure 1).

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In regard to Claim 5

- The isolation means incorporates a time delay circuit (See Column 9, Line 62 to Column 10, Line 7) that maintains electrical isolation between the plug and socket for a fixed period of time in order that there is adequate time to fully engage the plug and socket assembly and thereby avoid false activation.

In regard to Claim 17

- The plug and socket each comprising fixed diameter barrel-style coaxial bodies (See Figure 1) and the isolation means incorporates a time delay circuit (See Column 9, Line 62 to Column 10, Line 7) that maintains electrical isolation between the plug and socket for a fixed period of time in order that there is adequate time to fully engage the plug and socket assembly and thereby avoid false activation.

### ***Allowable Subject Matter***

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Wood (US 5,726,506) teaches the use of current direction-limiting means (ie. diodes) (See figure 1) used to protect the circuit against reverse current however there is a lack of motivation to combine the diode taught by Wood in place of the simple electronic circuitry taught by Sumi.

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Claims 6-16 are allowed.

In regard to Claim 6, 12, & 14

Sumi et al teaches a coaxial plug and socket (See Figure 8). Wood (US 5,726,506) teaches the use of current direction-limiting means (ie. diodes) (See figure 1) used to protect the circuit against reverse current however prior art fails to teach coupling plug contacts and socket contacts via the current direction-limiting means where said plug contacts are adapted for electrical communication with said socket contacts only upon proper engagement of said socket means with said plug means and a circuit isolation means only permitting flow of electrical current thorough one or more remaining plug-socket contact pairs when current flow through at least one of said plug-side and socket side current direction limiting means is detected.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the



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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Cavallari

January 11, 2007

  
**CHAU N. NGUYEN**  
**PRIMARY EXAMINER**